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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,315	06/18/2001	Shinichi Hayashi	FUJI 18.659	4585

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EXAMINER	
SHINGLES, KRISTIE D	
ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/885,315	HAYASHI ET AL.	
	Examiner	Art Unit	
	Kristie Shingles	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5,8-10,12-15 and 18-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5,8-10,12-15 and 18-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

No claims have been amended.
Claims 3, 4, 6, 7, 11, 16 and 17 are cancelled.

Claims 1, 2, 5, 8-10, 12-15 and 18-20 are pending.

Response to Arguments

Applicant's arguments filed on 8/25/2006 have been fully considered but they are not persuasive.

A. Regarding claim 1: Applicant argues the cited prior art of record, *Yamada et al* (6,738,352) fails to teach the claimed limitation of "deciding whether a traffic loss occurs by redistributing the traffic flow from said failed route to the route other than said failed route".

Examiner respectfully disagrees. *Yamada et al* teach that when it is determined that there is traffic congestion on a particular path and the traffic capacity threshold has been exceeded then the path selecting process chooses another path to transfer the traffic to until a path is chosen which is able to handle the amount of traffic without loss (col.15 lines 25-41, col.16 lines 40-51). Furthermore *Yamada et al* teach failure detour paths wherein the traffic is transferred to a detour route other than the failed route, wherein the new transfer path is determined to be an optimum path without any traffic loss (col.8 lines 1-15). This teaching of *Yamada et al* fulfills the above claimed feature by redistributing traffic flow from a failed or congested path to an optimal path that experiences no congestion or failure. Applicant's arguments are therefore unpersuasive and the rejection under the prior art is maintained.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1, 2, 5, 8-10, 12-15 and 18-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Yamada et al* (US 6,738,352) in view of *Buyukkoc et al* (US 6,452,902).

a. **Per claim 1,** *Yamada et al* teach a traffic engineering method of a network divided into a plurality of areas, each area including a plurality of nodes, said method comprising the steps of:

- calculating a normalized value used for the load-balancing process, based on address information of the packet supplied to an ingress node of the network from an outside of the network (col.14 lines 18-52; path information number functions as flow discrimination information used for load-balancing);
- adding said normalized value to switching information of said packet (col.9 lines 1-4, col.16 lines 11-12; flow discrimination information is put into the packet header);
- forwarding said packet from said ingress node to the plurality of nodes (col.7 lines 4-22);
- receiving said packet from said ingress node at an area boundary node located on a boundary of the plurality of areas (col.7 lines 4-22);
- extracting said normalized value, used for carrying out the load-balancing process in an area including said area boundary node, from the switching information of said packet (col.12 lines 24-28, col.16 lines 5-18; flow discrimination information is extracted from header);
- redistributing a traffic flow from a failed route to a route other than the failed route if receiving a failure notification at said ingress node or said area boundary node (col.8 lines 1-15, col.15 lines 1-6); and

- deciding whether a traffic loss occurs by redistributing the traffic flow from said failed route to the route other than said failed route (col.16 lines 40-55).

Yamada et al teach edge apparatuses and performing load-balancing for each node of the network wherein a plurality of destination devices or routes are provided in each node (col.11 lines 45-50, col.14 lines 2-15). Yet *Yamada et al* fail to explicitly teach carrying out a load-balancing process at a boundary node in said each area in a closed manner, however *Buyukkoc et al* provision for a load-balancing process edge nodes (Abstract, col.6 lines 8-22, col.7 lines 14-23, col.8 lines 56-59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings *Yamada et al* with *Buyukkoc et al* for implementing a technique useful for load-balancing and routing data, in an area of a network. The idea of dividing a network into multiple areas is a well-known technique used in the art to more effectively manage devices in smaller groups within common network domains.

b. **Claims 9, 10, 13, 14, 19 and 20** contain limitations substantially equivalent to claim 1, and are therefore rejected under the same basis.

c. **Per claim 2,** *Yamada et al* with *Buyukkoc et al* teach the traffic engineering method as claimed in claim 1, *Yamada et al* further teach the method further comprising the step of deciding a destination of a packet in said each area (col.8 lines 7-36, col.14 lines 43-52; *Buyukkoc et al*: col.3 line 54-col.4 line 62, col.6 lines 8-33).

d. **Per claim 5,** *Yamada et al* with *Buyukkoc et al* teach the traffic engineering method as claimed in claim 1, *Buyukkoc et al* further teach the method further comprising the step of notifying a closest node apparatus that carries out the load-balancing process and is the closest to said node apparatus on an upstream side of said node apparatus, about a failure if detecting the failure (col.8 lines 1-19, col.9 lines 5-24).

e. **Claim 12** contains limitations substantially equivalent to claim 5, and is therefore rejected under the same basis.

f. **Per claim 8,** *Yamada et al* with *Buyukkoc et al* teach the traffic engineering method as claimed in claim 1, *Yamada et al* further teach further comprising the steps of: setting a new route, if it is decided at said deciding step that the traffic loss occurs by redistributing the traffic flow from said failed route to the route other than said failed route; and switching the traffic flow from said failed route to the new route (*Buyukkoc et al*: col.9 lines 5-12).

g. **Claims 15 and 18** contain limitations substantially equivalent to claim 8, and are therefore rejected under the same basis.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Devarakonda et al (6,424,992), Sethu (5,812,549), Liu et al (2006/0112176), Matsuzawa et al (2006/0109853), Cotter et al (6,272,548), Lu et al (6,754,843).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER